

# *Nymphicula yoshiyasui* n. sp. (Lepidoptera: Pyralidae, Nymphulinae) from Japan

David J. L. AGASSIZ

*The Natural History Museum, Cromwell Road, London SW7 5BD, United Kingdom*

**Abstract.** The name *Nymphicula yoshiyasui* n. sp. is proposed for *Nymphicula junctalis* (Hampson) sensu Yoshiyasu, 1980, a Japanese species. The Indian species *N. junctalis* (Hampson) is redescribed.

**Key words:** *Nymphicula*, Nymphulinae, Japan.

## Introduction

Species of the genus *Nymphicula* Snellen extend across the Far East to Australia, the islands of the South Pacific, and Africa. The overall appearance of adults is very similar but subtle differences in the wing pattern can usually be detected, as well as those in the genitalia and tympanal organs. Since 1980 it has become apparent that *Nymphicula* Snellen is a large genus with a great many species throughout South East Asia; Speidel & Mey (1999) recently listed 22 species from part of the region.

Yoshiyasu (1980) in an excellent paper on the genus *Nymphicula* in Japan recognised four species including *N. junctalis* (Hampson). Speidel (1984) placed *junctalis* in the synonymy of *N. patnalis* (Felder & Rogenhofer) but later restored it to full species status (Speidel, 1998). Study of the type series of *N. junctalis* in the Natural History Museum, London (NHM), shows it to be a distinct species from India leaving the species identified by Yoshiyasu as *junctalis* without a name. For this species the name *yoshiyasui* is proposed. The species is adequately described by Yoshiyasu (*loc. cit.*) and therefore it only remains to designate type specimens and state its diagnostic differences. In order to avoid any confusion *N. junctalis* (Hampson) is redescribed, the male and female genitalia are described and drawn, and the tympanal organs of this species and *N. yoshiyasui* n. sp. are illustrated.

### *Nymphicula junctalis* (Hampson, 1891)

*Description of imago.* (Fig. 5)

Wingspan 14–15 mm. Head mixed pale brown and white; labial palpus terminal segment about as long as

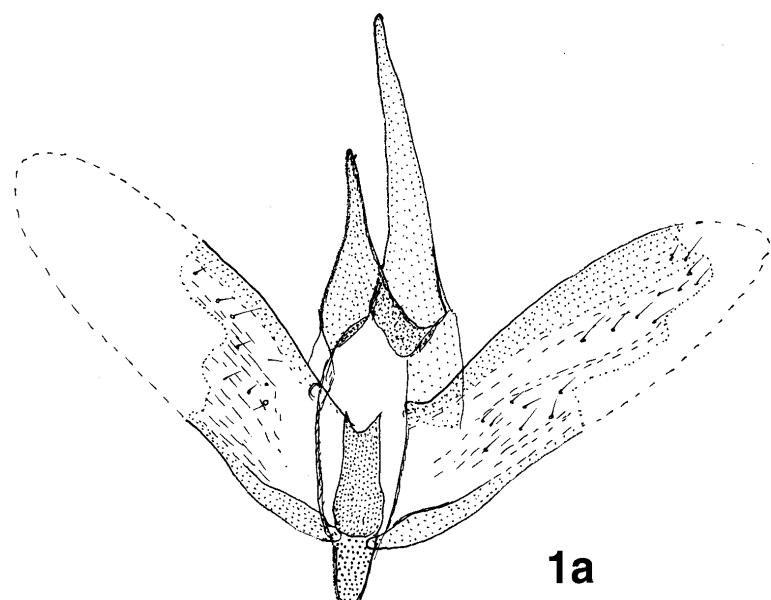
second, pale ochreous, rough scaled basally; antenna of male minutely ciliate, pale brown.

Forewing with base and basal two-thirds of costa fuscous; a yellow subbasal fascia from dorsum reaching nearly to costa, edged brown on each side; medial area of wing evenly scattered with dark brown scales; terminal area yellow, a silver-grey elongate tornal spot; opposite it on costa a wedge-shaped strigula mixed white and metallic grey, a second strigula between it and apex mostly white, grey dorsally, edged fuscous; terminal cilia with a band of fuscous scales.

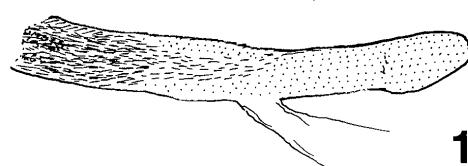
Hindwing with a yellow incomplete sub-basal fascia, outwardly edged brown; a silver-grey elongate spot on inner margin; a yellow streak from dorsum extending towards base; medial area of wing evenly scattered with fuscous scales enclosing a whitish lunar mark in disc; a clear subterminal line with white on either side of it; a silver-grey tornal spot followed by five distinct black eye-spots, each bearing a shining metallic grey spot on the inner side; yellow between eye-spots and termen and around apex. Legs straw-coloured, foreleg of male thickened on tibia with brown scales.

Tympanal organs (Fig. 3): in both sexes the venulae, defined by Maes (1985) as sclerotised structures on the ventral surface of the first abdominal segment, are of a distinct shape being strongly and conspicuously curved outwards at the anterior end.

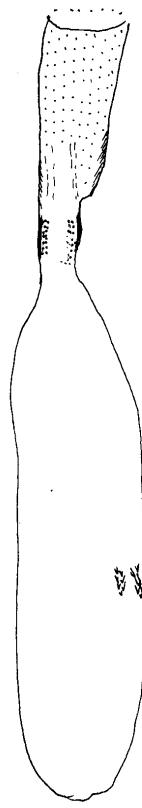
Male genitalia (Fig. 1a): Typically simple *Nymphicula* genitalia, length of valva is approximately 4× breadth, in Fig. 1a the tips of the valvae are reconstructed, the type specimen being damaged; The uncus is almost twice as long as gnathos; gnathos with a few small spines on dorsal side near apex; aedeagus (Fig. 1 b) with spiculation towards the posterior end. 8th abdominal segment without hair pencils. NHM Pyral-



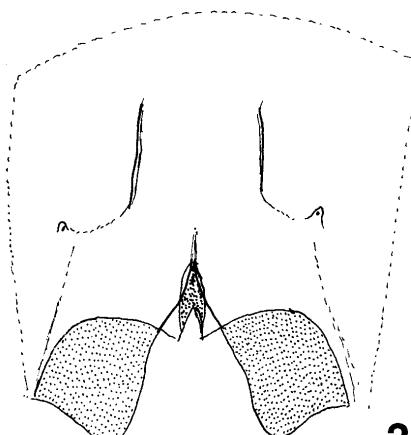
1a



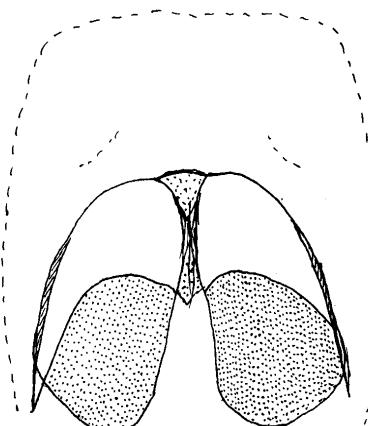
1b



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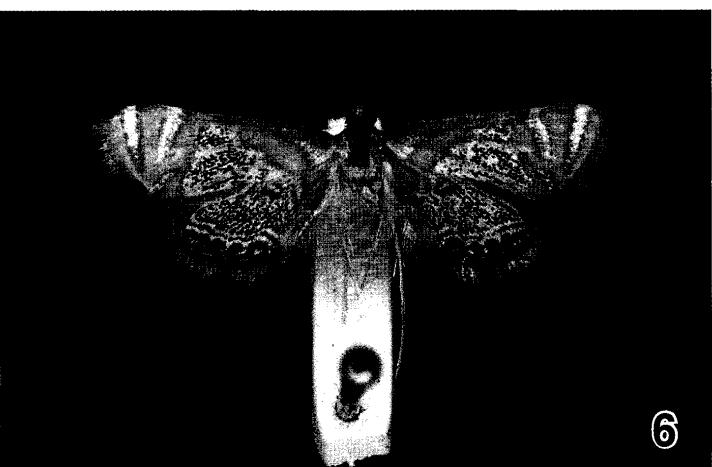
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6

Figs. 1-6. 1a, *N. junctalis* male genitalia; 1b, aedeagus; 2, *N. junctalis* bursae of female genitalia; 3, tympanal organs of *N. junctalis*; 4, tympanal organs of *N. yoshiyasui*; 5, *Nymphicula yoshiyasui* n. sp.; 6, *Nymphicula junctalis* (Hampson).

idae slide No. 17503.

Female genitalia (Fig. 2): Bursae simple, ductus almost as long as corpus bursa; signum consisting of a pair of short spinose patches extending about one seventh of the length of corpus bursa. NHM Pyralidae slides No. 17502 & 11563 (lectotype).

**Material examined:** Lectotype ♀ designated by Speidel (1984), Nilgiris, Hampson Coll., 2 further ♀♀ with same data, 1♂ Kanara, Nagodi, 4/8/1896–Brodis; all in NHM.

**Distribution:** South India: Nilgiri Hills and Kanara district.

### *Nymphicula yoshiyasui* n. sp.

Holotype: ♂ (Fig. 6) bearing labels:

1. a red-circled holotype label; 2. Amami-Ōshima, Shinmura, 19.v.1975, Y. Yoshiyasu; 3. BM Pyralidae slide No 21220; 4. HOLOTYPE *Nymphicula yoshiyasui* Agassiz, teste D. Agassiz 1998; – in NHM collection. Paratypes: two ♂♂ in NHM labelled Riu Kiu, one dissected, NHM Pyralidae slide No. 17508.

### Described by Yoshiyasu (1980)

The diagnostic features externally are the five marginal eye spots of the hindwing, the pale orange apex of the forewing and the foreleg of the male thickened laterally with fulvous scales; internally the hair pencils in the male genitalia and the cornutus in the aedeagus. The tympanal organs have rounded tympanum; the venulae secundae are weak and broadly divergent (Fig. 4). Superficially the species is very similar to *junctalis* but the latter has a clear basal oblique orange fascia on the forewing; structurally the distinctive venulae give a striking difference for both sexes. In the male genitalia the aedeagus of *yoshiyasui* has a

small stout cornutus in the vesica whereas in *junctalis* there is no such cornutus, but a patch with minute spinules. In the female genitalia the corpus bursae has short signa in *junctalis* and long signa in *yoshiyasui*.

**Distribution:** The species has been recorded from Taiwan and from Okinawa to Amami-Ōshima, Japan.

**Biology.** Shen-Horn Yen (pers. comm.) states that this species requires a very humid environment; he will give further information on the biology in a later paper.

**Etymology.** The species is named in honour of Dr. Yutaka Yoshiyasu who discovered it.

### Acknowledgments

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### References

Maes, K. 1985. A comparative study of the abdominal tympanal organs in Pyralidae (Lepidoptera). I. Description, terminology, preparation technique. *Nota lepidopterologica*, 8: 341–350.

Speidel, W. 1984. Revision der Acentropinae des palaearktischen Faunengebeitetes (Lepidoptera, Crambidae). *Neue Entomologische Nachrichten*, 12: 1–157.

Speidel, W. 1998. The genus *Nymphicula* Snellen [1888] in the Philippines (Lepidoptera; Crambidae; Acentropinae). *Esperiana*, 6: 536–538.

Speidel, W. & Mey, W. 1999. Catalogue of the Oriental Acentropinae (Lepidoptera, Crambidae). *Tijdschrift voor Entomologie*, 142: 125–142.

Yoshiyasu, Y. 1980. A systematic study of the genus *Nymphicula* Snellen from Japan (Lepidoptera: Pyralidae). *Tyô to Ga*, 31: 1–28.

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